

bScope® fluorescence



HIGHLIGHTS

- Trinocular models
- WF 10x/22 mm eyepieces
- Reversed ball-bearing quintuple nosepiece with slot for polarization filter
- E-plan IOS, Plan IOS and Plan Fluarex IOS objectives
- Rackless integrated X-Y mechanical stage
- Epi-fluorescence illumination with four monochromatic LEDs or a 100 W HBO mercury vapor lamp
- 3 W NeoLED™ adjustable transmitted illumination system
- Integrated carrying grip
- Cable Storage System and anti-theft system
- 10 years warranty

TECHNICAL SPECIFICATIONS

EYEPIECES

Wide field HWF 10x/22 mm secured eyepieces (Ø 30 mm tube)

HEAD

- The bScope® is equipped with a Siedentopf type head and equipped with 30° inclined Ø 30 mm tubes and with a ± 5 diopter adjustment on left eyepiece. The interpupillary distance is adjustable between 48 to 76 mm
- The trinocular head comes with a Ø 23.2 mm photo tube, ensuring maximum flexibility. The prisms inside the heads are designed to minimize the light absorption for perfect digital imaging. The trinocular head has a light path selector (100:0 / 0:100) and generates an erect image

NOSEPIECE

Revolving and reversed ball-bearing quintuple nosepiece

OBJECTIVES

The state-of-the-art production techniques and multi layer coatings used for the manufacturing of the bScope® objectives enable the bScope® to be used for the most demanding applications. World class spherical aberration correction and modern CNC and assembly technology ensure the perfect centering of the objectives

- E-plan or plan infinity corrected EPLi or PLi 4x/0.10, 10x/0.25, 20x/0.40, S40x/0.65, S60x/0.85 and S100x/1.25 oil immersion IOS objectives for applications where violet or Ultra-Violet excitation is not needed
- Plan Fluarex infinity corrected PLFi 4x/0.10, 10x/0.25, 20x/0.40, S40x/0.65 and S100x/0.90 IOS objectives for applications where either higher resolving power or violet or ultra-violet excitation is needed



BS.3153-PLi ●

TRINOCULAR MODELS

505 (h) x 195 (w) x 450 mm (d) | 8.8 kg

All S40x, S60x and S100x oil immersion objectives are spring loaded.

All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

FOCUSING

Double coaxial, low-positioned coarse and fine adjustments with 180 graduations. Precision 1.1 μm , 200 μm per rotation, total travel range is approximately 19 mm. Supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustment is equipped with friction control

STAGE

The bScope® is equipped with a scratch-resistant 152/197 x 131 mm stage with integrated 75 x 36 mm X-Y rackless mechanical stage, Vernier scale, soft-close removable specimen holder. The rackless stage has no protruding parts, enables more smooth movements and is safer in use. Low-positioned X-Y control knobs prevent fatigue during long working sessions

CONDENSER FOR BRIGHTFIELD

The standard height adjustable Abbe N.A. 1.25 condenser for brightfield comes with an iris diaphragm and swing-out filter holder

CONDENSER FOR ZERNIKE PHASE CONTRAST

The height adjustable Zernike NA. 1.25 phase contrast disc condenser comes with phase annuli for 10/20/S40x and S100x phase contrast objectives, an iris diaphragm, a swing-out filter holder and also a BF position for brightfield contrast. Phase contrast objectives are available in either EPL-PHi or PL-PHi versions. Supplied with alignment telescope and green filter

CONDENSER FOR SIMPLE PHASE CONTRAST

The height adjustable NA. 1.25 simple phase contrast condenser has a free slot for either a slider for 10/S40x phase contrast objectives, or a slider for 20/S100x phase contrast objectives. The condenser has an iris diaphragm and filter holder. The condenser includes a BF position for brightfield contrast with an iris diaphragm and filter holder. Phase contrast objectives available in either EPL-PHi or PL-PHi version. Supplied with alignment telescope and green filter

POLARIZATION

The bScope® has an integrated slot above the nosepiece for an optional polarization filter

FLUORESCENCE ATTACHMENTS

- Epi-illumination with four 5 W LEDs for fluorescence excitation from 450 to 470 nm (blue), 515 to 535 nm (green), 390 to 400 (violet) and 360 to 370 nm (ultraviolet). External 100-240 V power supply
- Epi-illumination with 100 W HBO mercury vapor lamp. External 110 or 230 V power supply
- Supplied with UV protection shield
- Fluorescence filter sets:

| | EX | DM | EM |
|----|---------|-----|----------|
| B | 450-495 | 505 | 515 (LP) |
| G | 495-555 | 580 | 595 (LP) |
| V | 380-415 | 460 | 475 (LP) |
| UV | 320-380 | 420 | 435 (LP) |

NEOLED™ TRANSMITTED ILLUMINATION

The 3 W adjustable Köhler NeoLED™ transmitted illumination is powered by an internal 100-240 V power supply making it suitable for worldwide use. The innovative NeoLED™ design offers larger apertures, allowing the optical system of the bScope® microscope to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics. Other benefits of the NeoLED™ is the low energy consumption, no heating and a long operating life span



● BS.3153-PLi

KÖHLER ILLUMINATION

A Köhler illumination ensures for all infinity corrected IOS models the highest possible contrast and the maximum achievable resolving power. Generates a uniform illumination of the sample and eliminates all interference from dust on lenses and side glare of the light source

CORDLESS USE

The optional rechargeable batteries turn the bScope® into a cordless system for transmitted illumination

CSS – CABLE STORAGE SYSTEM

Allows users to easily stow away excess cable length into the back of the instrument during operation and to roll up the power cable for easy storage

CARRYING GRIP

The integrated carrying grip at the back of the microscope ensures safe transportation of the microscope

ANTI-THEFT SLOT

At the back of the microscope a Kensington Security Slot is placed, which can be used to secure the instrument from theft

PACKAGE CONTENT

Smart styrofoam packaging ensures a low environmental footprint while maintaining maximum safety during transport. Supplied with power cord, dust cover, tools, a spare fuse, white filter, user manual and 5 ml immersion oil

BSCOPE® WITH EPI-FLUORESCENCE 4 LED ILLUMINATION (BLUE, GREEN, VIOLET AND ULTRA-VIOLET)

| MODELS | Trinocular | HWF 10x/22 mm eyepieces | Quintuple nosepiece E-plan EPLi 4/10/S40/S100x | Quintuple nosepiece Plan PLi 4/10/S40/ S100x | Quintuple nosepiece Plan Fluarex PLFi 4/10/S40/ S100x ⁽¹⁾ |
|--------------|------------|-------------------------|---|---|---|
| BS.3153-EPLi | • | • | • | | |
| BS.3153-PLi | • | • | | • | |
| BS.3153-PLFi | • | • | | • | • |

BSCOPE® WITH EPI-FLUORESCENCE 100 W HBO MERCURY VAPOR LAMP ILLUMINATION

| MODELS | Trinocular | HWF 10x/22 mm eyepieces | Quintuple nosepiece E-plan EPLi 4/10/S40/S100x | Quintuple nosepiece Plan PLi 4/10/S40/ S100x | Quintuple nosepiece Plan Fluarex PLFi 4/10/S40/ S100x ⁽¹⁾ |
|------------------|------------|-------------------------|---|---|---|
| BS.3153-EPLi/HBO | • | • | • | | |
| BS.3153-PLi/HBO | • | • | | • | |
| BS.3153-PLFi/HBO | • | • | | | • |

⁽¹⁾The Plan Fluarex infinity corrected IOS objectives are recommended for applications either higher resolving power or violet or ultra-violet excitation is needed

ACCESSORIES AND SPARE PARTS

EYEPIECES

- BS.6310** WF 10x/22 mm eyepiece
- BS.6310-M** WF 10x/22 mm eyepiece
- BS.6315** WF 15x/12 mm eyepiece, Ø 30 mm tube
- BS.6399** Pair of eyecups, Ø 30 mm tube

OBJECTIVES

- BS.8204** E-plan EPLi 4x/0.10 IOS objective. WD 18.9 mm
- BS.8210** E-plan EPLi 10x/0.25 IOS objective. WD 5.95 mm
- BS.8220** E-plan EPLi 20x/0.40 IOS objective. WD 2.61 mm
- BS.8240** E-plan EPLi S40x/0.65 IOS objective. WD 0.78 mm
- BS.8200** E-plan EPLi S100x/1.25 IOS objective (oil). WD 0.36 mm
- BS.8404** Plan PLi 4x/0.10 IOS objective. WD 21.0 mm
- BS.8410** Plan PLi 10x/0.25 IOS objective. WD 5.0 mm
- BS.8420** Plan PLi 20x/0.40 IOS objective. WD 8.8 mm
- BS.8440** Plan PLi S40x/0.65 IOS objective. WD 0.66 mm
- BS.8400** Plan PLi S100x/1.25 IOS objective (oil). WD 0.36 mm
- 86.550** Plan Fluarex 4x /0.15 IOS objective. WD 21.6 mm
- 86.552** Plan Fluarex 10x/0.35 IOS objective. WD 2.9 mm
- 86.554** Plan Fluarex 20x/0.60 IOS objective. WD 1.5 mm
- 86.556** Plan Fluarex S40x/0.75 infinity corrected IOS objective. WD 0.6 mm
- 86.558** Plan Fluarex S100x/0.90 IOS objective. WD 0.62 mm
- BS.7400** Plan Fluarex S100x/1.30 IOS objective (oil). WD 0.13 mm

WD = working distance



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CONDENSERS

- BS.9102** Abbe condenser 1,25 NA with slot for darkfield and phase contrast sliders
- BS.9170** Darkfield stop for BS.9102 condenser
- BS.9105** Swing-out Abbe condenser 0.9/1.25 NA

PHASE CONTRAST ATTACHMENTS

- BS.9120** Zernike phase contrast kit with E-plan EPLPHi 10/20/S40 and S100x oil phase contrast IOS infinity corrected objectives, Zernike rotating condenser, telescope and green filter
- BS.9126** Zernike phase contrast kit with plan PLPHi 10/20/S40 and S100x oil phase contrast IOS infinity corrected objectives, Zernike rotating condenser, telescope and green filter
- BS.9148** Alignment telescope for bScope® IOS version with Ø 30 mm tubes
- BS.9159** Phase contrast kit with Abbe condenser with slot for slider. E-plan EPLPHi 20/S100x phase contrast infinity corrected objectives, slider with 20 and 100x annuli, telescope and green filter
- BS.9163** Phase contrast kit with Abbe condenser with slot for slider. Plan PLPHi 20/S100x phase contrast infinity corrected objectives, slider with 20 and 100x annuli, telescope and green filter

POLARIZATION ATTACHMENTS

- BS.9647** Polarization polarizer Ø 6 mm for slider under bScope® head
- BS.9651** Polarization attachment for lamphouse of bScope® with 360° scale

MISCELLANEOUS

- BS.9993** NeoLED™ replacement unit
- AE.1370** Set of rechargeable batteries, three pieces
- SL.1385** 100 W HBO mercury vapor lamp for fluorescence

CAMERA ACCESSORIES

- AE.5130** Universal Ø 23.2 mm tube adapter with built-in 2x lens for SLR photo camera with APS-C sensor. Needs T2 adapter
- AE.5025** T2 adapter for Nikon D SLR digital camera
- AE.5040** T2 adapter for Canon EOS SLR digital camera

DISPOSABLES

- PB.5155** Microscope slides 76 x 26 mm, ground edges, 50 pieces
- PB.5157-W** Microscope slides 76 x 26 mm, ground edges. White frosted side, 50 pieces per pack
- PB.5157-B** Microscope slides 76 x 26 mm, ground edges. Blue frosted side, 50 pieces per pack
- PB.5165** Cover glasses 18 x 18 mm, thickness 0.13-0.17 mm, 100 pieces
- PB.5168** Cover glasses 22 x 22 mm, thickness 0.13-0.17 mm, 100 pieces
- PB.5245** Lens cleaning paper, 100 sheets per pack
- PB.5255** Immersion oil (25 ml). n = 1.482
- PB.5274** Isopropyl alcohol 99% (200 ml)
- PB.5275** Cleaning kit: lens cleaning fluid, lint free lens tissue/paper, brush, air blower, cotton swabs
- PB.5276** Microscope maintenance and servicing kit, 16pcs: cleaning brush, 6 pcs screwdriver set, air blower, 3 pcs Allen key, 1.5, 2, 2.5 mm, lens cleaning fluid 20 ml, cleaning cloth 140 x 140 mm, 100 pcs lens tissue sheets, tube of maintenance grease, 10 ml bottle of oil, packed in a nice toolbox